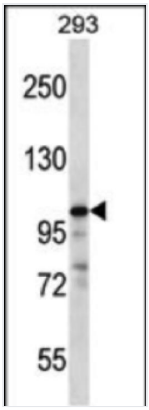
RASA1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	RASA1, Polyclonal Antibody
Full Product Name	RASA1, CT (RASA1, RASA, Ras GTPase-activating protein 1, Ras p21 protein activator, p120GAP) (PE)
Product Gene Name	anti-RASA1 antibody
Product Synonym Names	RASA1; RASA; Ras GTPase-activating protein 1; Ras p21 protein activator; p120GAP
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with R-Phycoerythrin (PE).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human RASA1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	101,546 Da
OMIM	phenotype 608355
3D Structure	ModBase 3D Structure for P20936
Immunogen	KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 966-993 in the C-terminal region of human RASA1, UniProt Accession #P20936.
Conjugate	PE
Note	Preservative Free
Special Handling	Light sensitive
Product Categories/Family for anti-RASA1 antibody	Antibodies; GTPase; Rab; Ras; Rho Proteins
Applications Tested/Suitable for anti-RASA1 antibody	Western Blot (WB), FLISA
Application Notes for anti-RASA1 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-RASA1 antibody	The protein encoded by this gene is located in the cytoplasm and is part of the GAP1 family of GTPase-activating proteins. The gene product stimulates the GTPase activity of normal RAS p21 but not its oncogenic counterpart. Acting as a suppressor of RAS function, the protein enhances the weak intrinsic GTPase activity of RAS proteins resulting in the inactive GDP-bound form of RAS, thereby allowing control of cellular proliferation and differentiation. Mutations leading to changes in the binding sites of either protein are associated with basal cell carcinomas. Alternative splicing results in two isoforms where the shorter isoform, lacking the N-terminal hydrophobic region but retaining the same activity, appears to be abundantly expressed in placental but not adult tissues.

Product References and Citations for anti-RASA1 antibody	Hemerly, J.P., et al. Eur. J. Endocrinol. 163(5):747-755(2010). Wiemels, J.L., et al. Blood Cells Mol. Dis. 45(3):186-191(2010). Bachas, C., et al. Blood 116(15):2752-2758(2010). Oinuma, I., et al. J. Biol. Chem. 285(36):28200-28209(2010). Anand, S., et al. Nat. Med. 16(8):909-914(2010).
Other Notes	Small volumes of anti-RASA1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for RASA1 purchase	MBS6340382 is an antibody targeting RASA1. Also known as RASA1, CT (RASA1, RASA, Ras GTPase-activating protein 1, Ras p21 protein activator, p120GAP) (PE). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-RASA1 antibody
Western Blot analysis in 293 cell line lysates (35ug/lane) usingMBS647478.This demonstrates the RASA1 antibody detected the RASA1 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RASA1. It may not necessarily be applicable to this product.

NCBI GI #	4506431
NCBI GeneID	5921
NCBI Accession #	NP_002881.1
NCBI Related Accession #	NP_072179.1
UniProt Primary Accession #	P20936
UniProt Secondary Accession #	Q68CU6; Q9UDI1; B2R6W3; B4DTL2
UniProt Related Accession #	P20936
GenBank Nucleotide #	NM_002890.2
NCBI Official Full Name	ras GTPase-activating protein 1 isoform 1
NCBI Official Synonym Full Names	RAS p21 protein activator 1
NCBI Official Symbol	RASA1
NCBI Official Synonym Symbols	GAP; PKWS; RASA; p120; CMAVM; CM-AVM; RASGAP; p120GAP; p120RASGAP
UniProt Protein Name	Ras GTPase-activating protein 1
UniProt Synonym Protein Names	Ras p21 protein activator; p120GAP
Protein Family	Ras GTPase-activating protein
UniProt Gene Name	RASA1
UniProt Synonym Gene Names	GAP; RASA; GAP; GTPase-activating protein; RasGAP
UniProt Entry Name	RASA1_HUMAN

NCBI Protein Information	ras GTPase-activating protein 1
NCBI Summary for RASA1	The protein encoded by this gene is located in the cytoplasm and is part of the GAP1 family of GTPase-activating proteins. The gene product stimulates the GTPase activity of normal RAS p21 but not its oncogenic counterpart. Acting as a suppressor of RAS function, the protein enhances the weak intrinsic GTPase activity of RAS proteins resulting in the inactive GDP-bound form of RAS, thereby allowing control of cellular proliferation and differentiation. Mutations leading to changes in the binding sites of either protein are associated with basal cell carcinomas. Mutations also have been associated with hereditary capillary malformations (CM) with or without arteriovenous malformations (AVM) and Parkes Weber syndrome. Alternative splicing results in two isoforms where the shorter isoform, lacking the N-terminal hydrophobic region but retaining the same activity, appears to be abundantly expressed in placental but not adult tissues. [provided by RefSeq, May 2012]
UniProt Comments for RASA1	RASA1: a GTPase activator for normal RAS p21 but not its oncogenic counterpart, converting it to the putatively inactive GDP-bound state. Acting as a suppressor of RAS function, it enhances the weak intrinsic GTPase activity of RAS proteins resulting in the inactive GDP-bound form of RAS, thereby allowing control of cellular proliferation and differentiation. Mutations leading to changes in the binding sites of either protein are associated with basal cell carcinomas. Two alternatively spliced isoforms have been described. Protein type: Motility/polarity/chemotaxis; GAPs, Ras; Oncoprotein; GAPs Chromosomal Location of Human Ortholog: 5q13.3 Cellular Component: ruffle; cytoplasm; cytosol Molecular Function: GTPase binding; protein binding; glycoprotein binding; potassium channel inhibitor activity; receptor binding Biological Process: axon guidance; negative regulation of cell adhesion; negative regulation of cell-matrix adhesion; signal transduction; regulation of cell shape; regulation of actin filament polymerization; embryonic development; cytokinesis after mitosis; regulation of RNA metabolic process; ephrin receptor signaling pathway; blood vessel morphogenesis; negative regulation of Ras protein signal transduction; negative regulation of neuron apoptosis; vascular endothelial growth factor receptor signaling pathway; vasculogenesis Disease: Parkes Weber Syndrome; Capillary Malformation-arteriovenous Malformation; Basal Cell Carcinoma, Susceptibility To, 1
Research Articles on RASA1	**1.** This is the second largest study on isolated, non-syndromic Port-wine stain; data suggest that GNAQ is the main genetic determinant in this condition. Moreover, isolated port-wine stains are distinct from capillary malformations seen in RASA1 disorders.
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